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Marked
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Examiner please note: To comply with Office Communication 2677 dated 3/25/2002, re Application No. 09/878,456, requiring a mark-up copy of original pages showing changes, in the following submission the original text is shown first, red-lined to indicate cancellation. Revised (new) text *in italics* follows each such red-lined portion. All revised (new) text is inserted, without any change, directly from Revised Application filed January 8, 2002 (which is in your file).

SPECIFICATION

TITLE: UNIVERSAL PORTABLE ILLUMINATED ARTWORK MODULE

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is entitled to the benefit of Provisional Patent Application Ser. #60/211,199 filed 2000, June 13.

This application is benefited by dating of previous filing of Provisional Patent Application, Application No. 60/211,199 Filed 06/13/00 by inventor Edgar M. Nash.

STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH AND DEVELOPMENT

Non-Applicable

No change

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BACKGROUND OF INVENTION

This invention relates to back-lighted device to display artwork, specifically to a flexibly portable embodiment having a wide multiplicity of new art media applications.

An exhaustive scrutiny of prior art discloses no portable apparatus securable into any display device of choice, such as a picture frame, simply, quickly and effectively. Prior

art does not enable direct application of an artwork onto a re-usable platen coincidentally while said platen is mounted onto a back-lighted display device. Nor does prior art support multiple new art forms as taught, enabled and encouraged by present invention.

From ancient times to the present, artful depictions, especially those held in frames, have remained lifeless and still. Inventor now brings into focus new art forms that until now have been unexplored, but bear incredible utility, and teaches innovative artful combinations of lighting, artworks production and display (including within picture frames) that promise the release of glorious beauty not attainable in the past. Present invention introduces entirely new and vigorous art expressions into a field occupied and compromised by old art that failed to recognize the many possible art innovations hitherto lying dormant in a very fertile domain.

DESCRIPTION OF THE RELATED ART

[No text in original application]

*New
info
1/10/46*
A thorough scrutiny of prior art failed to bring into view any inventions that addressed any of the several claims held in the present invention. Eight examples of prior art are listed in the Information Disclosure Statement, none of which approximates the bright claims made in this application. Additional patents scrutinized include US-1,888,406 (Payberg), US-3,680,238 (Arnold), US-5,237,766 (Mikolay) and US-6,0989,326 (Campbell, 111), all of Classification 40-564.

Payberg teaches a display card and framework to hold that card. The card is primary to this invention, and severely limits its utility other than as an illuminated sign of some type. The "framework" is secondary, and only illuminates the display card. No mention whatever is made of the use of this item for display of artworks as such. My invention does not impinge upon Payberg in any manner.

Arnold also teaches a sign display with variations only of the sign itself, but no mention re use of the device for display of artworks. Nor are any variations of lighting addressed. My invention does not conflict in any manner with Arnold.

Mikolay also relates only to the invention being used as a sign used to simulate neon illumination. This invention does not claim any configuration or use as an artwork display device. The independent claim says it is "an illuminated sign". My invention does not infringe in any manner with Mikolay.

Campbell claims to be a "light fixture for displaying a message". The "message" is defined as a sign. Further, the light source(s) are mounted on a panel separate from the light box, and is termed "a lighting assembly panel" inserted into the light box. The sign panel(s) are interchangeably inserted into a "sign slot" and not disposed to be displayed in a display frame such as a picture frame. This is not an artwork display unit, and only a commercially-oriented device. My invention does not intrude on any part of Campbell claims.

No prior art examined by inventor enjoys varying applications, at best. My invention carries a multiplicity of employments, largely at the discretion of the artist, or discretion of the viewer - which in itself is unique.

OBJECTS AND ADVANTAGES

It is the object of present invention to enable multiple innovative new art modes permitted by the basic Universal Portable Illuminated Artwork Module and to permit such diversification easily through classically elementary means.

Present invention usefully combines widely diversified elements and features un-addressed by prior art: Portability of Module assembly permits endless substitution of any display device such as a picture frame of choice; Simple and inexpensive structure; Optimal diffusion of light permitting no bright spots or shadows on the artwork; A wide variation of light sources making possible exceptional artwork effects heretofore unattainable; Endless substitution of platen-supported artwork either of artwork applied

directly to or overlaying the platen; Simple substitution of platen artwork including work that may be a compositely-layered buildup as in a collage work; A Module assembly that is light in weight, and inexpensive to produce using several elements widely available commercially.

It is the object of present invention to enable multiple innovative new art modes permitted by flexible adaptability of the basic Universal Portable Illuminated Artwork Module and to permit such diversification easily through classically elementary means. Present invention usefully combines widely diversified elements and features that are not addressed in prior art: (1) Portability of Module assembly permits endless attachment to or onto separate display devices such as picture frames of choice; and (2) Simple and inexpensive structure; and (3) Optimal diffusion of light, even to the extent of interposing a light-diffusing device proximate to the back of the platen, permitting no bright spots or shadows on the artwork displayed; and (4) A wide variety of light source categories to play upon artwork displayed, used individually or in numerous combinations to enable a wide spectrum of variably-adjustable lighting effects heretofore unattainable; and (5) Simple substitution of multiple platens; and (6) Platen-supported artwork applied directly into, behind or overlaying Platen; and (7) Many genres of platen artwork even including depictions that may be compositely-layered as in collage works; and (8) A Module assembly that is light in weight and inexpensive to produce combining elements widely available commercially.

SUMMARY

Present invention permits exceptional flexibility and creativity by means of a simple and inexpensive embodiment means to backlight any translucent planar artwork, being a completely new and unique art medium utilizing many variations of the platen itself as the artwork, encouraging talented artists to express artistic dimensions heretofore not possible, and for which many new and innovative platens, lighting and sound effects may be controlled, mixed and/or combined to produce brilliant and delightful displays. An innovative artist's dream!!

Present invention encourages exceptional artistic flexibility and creativity by means of a simple and inexpensive but widely variable light-box backlighting a translucent or transparent platen supporting artwork to be displayed, all being a completely new, unique and important art medium utilizing many variations of the platen itself. The invention permits expression of artistic dimensions made possible by innovative employment of platen/lighting variations that themselves are dimmable, coupled with sound to control production of displays uniquely brilliant and delightful to the viewer.

DESCRIPTION OF THE INVENTION - MAIN EMBODIMENT

Present invention is compatible to embodiment in many differing modes, and while there will be described hereinafter the preferred embodiment of the invention and options thereto, there is no implication that there are limitations to any ramifications suggested by art taught herein.

No change.

Referring to Assembly No. 1, a system overview of preferred embodiment of present invention, it is disclosed that there are but FOUR PRIMARY ELEMENTS (Parts No's. 10, 11, 12 and 13) comprising my Universal Portable Illuminated Artwork Module ("Module").

Referring to Assembly No. 1, a system overview of preferred embodiment of present invention, it is disclosed that there are but four primary elements (Parts Nos. 10, 11, 12 and 13) comprising the invention.

1) ARTWORK DISPLAY PLATEN ("Platen"), Part No. 10.

Said Platen will sustain the artwork to be displayed and will match dimensions of the artwork proper, in preferred embodiment will be a clear and rigid sheet of plastic of sufficient strength and thickness to support any artwork such as a transparency and dimensioned to fit into and be contained within recessed front inner edge of artwork Contain Frame ("Frame"), Part No. 11. Said Platen ideally also may be a sheet of glass,

ceramic, metal, wood, plaster, etc., or any other material answering its required dimensions and physical requirements.

Platen in preferred embodiment is secured within the face of Artwork Containment Frame ("Frame"), Part No. 11, by means of any simple rotatable "clip" of sheet metal, plastic or any other suitable material, or may be secured by means of any of numerous devices dedicated to such utility, such as spring clamps.

A separate artwork not depicted directly onto or into the Platen is attached to said platen by means of simple rotatable slips made of metal, plastic, ceramic and the like, sized to accommodate varied thicknesses of separate artwork, or by any other attachment means such as clamps, slide latches, spring clamps or any other such devices well known to the art.

Said Platen sustains artwork to be displayed and optimally matches dimensions of the artwork proper. In preferred embodiment it is a clear and rigidly planar sheet of plastic sufficiently strong to support any artwork displayed, dimensioned to fit into or onto the front edge of the Artwork Containment Frame ("Frame"), Part No. 11. Said Platen optionally is a sheet of glass, ceramic, metal, wood, plaster, or any other material answering its required dimension and physical requirements. Options include a platen having curvilinear surface on one or both sides, such surface configuration is concave, convex or compoundly-curvilinear as required for display of unique and non-planar artwork.

new

Platen in preferred embodiment is secured within the face of Artwork Containment Frame ("Frame"), Part No. 11, by means of any simple rotatable "clip" formed of sheet metal, plastic or other suitably rigid material. Optionally, it is secured by means of any one or combination of numerous devices dedicated to such utility, such as spring clamps.

A separate artwork not applied directly onto or into Platen in preferred embodiment is attached to Platen by means of simple rotatable clips made of metal, plastic, ceramic

not shown

and the like sized to accommodate varied thicknesses of said artwork. Options are attachment means such as clamps, slide latches, spring clamps or other such devices.

ARTWORK CONTAINMENT FRAME ("Frame"), Part No. 11

In preferred embodiment Frame typically retains edges of Platen, and is assembled of sectionally mitred lengths of wooden moulding. It is obvious that material used also may be plastic, metal, ceramic, glass or any organic/inorganic composition of durable and machinable character. The section of Frame is modified as required for functionality relating to thicker sheets of work to be displayed, or as required by more than one Light Diffusion Sheet ("Sheet") (Part No. 12), or as required to accommodate heavier and larger artworks, or any other causitive reason(s).

In preferred embodiment Frame has all inner surfaces finished in a light-reflective media such as paint, metallic paint, silvering (for clear, transparent materials), tin plating, or any other means fitted to the task of effectively reflecting light from all inner portions of Frame. This coating applies especially to inner "bevelled" sloping faces (See Fig. 2-B).

In preferred embodiment Frame typically securely retains edges of Platen and is assembled of mitred lengths of wood moulding. It is obvious that material used also is plastic, metal, ceramic, glass or any organic/inorganic composition of durable and machinable character. The cross-sectional strength of Frame is modified as required for functionality relating to considerations imposed by thicker sheets of artwork to be displayed or as required by multiple Light Diffusion Sheets ("Sheet") Part No. 12, or as required to accommodate heavier, larger or dimensionally unique artworks, or any other reason(s).

In preferred embodiment all inner surfaces of Frame are coated by a light-reflective media such as paint, metallic paint, silvering, tin plating or any other means fitted to the task of effectively reflecting and diffusing light. This coating treatment applies especially to inner beveled surfaces immediately forward of Light Diffusion Screens. (See Fig. 2-B).

*new
method*

LIGHT DIFFUSION SCREEN(S) ("Screen") Part No. 12

In preferred embodiment Screen is dimensioned to fit into and be confined in back surface of Frame within recessed inner ledges therein and made of any clear sheets configured to disperse widely light emissions from any light source within Module. Acrylic is preferred material. Such Sheets have been in use for many years on ceiling-mounted fluorescent light boxes. Said sheets are secured within back of Frame, upon recessed inner ledges by means of four or more flat-head screws as required for service in metal, wood, plastic, etc. A plurality of screens may be employed if desired, in order to more thoroughly scatter light from Ventilated Light Box.

In preferred embodiment Screen is dimensioned to fit into and be confined within back surface of Frame, upon recessed inner ledges herein, in multiple thicknesses if desired. *new matter*

Screen is formed of any clear or translucent material, colored or clear configured to widely disperse toward front of Module all light emissions from any light source to back of Screen. Preferred material is Acrylic. Such sheets have been in use for many years in ceiling-mounted fluorescent light boxes, but their employment in present invention does not run concurrent to any claimed use in Prior Art inasmuch as configuration of inner reflecting surfaces of Frame forward of their positioning renders their use that of material utility. *new matter*

Further, the exact positioning of one or multiple screens contiguous to back of Platen is not duplicated elsewhere. Nor is the new and novel employment of Screen as the platen itself and upon which artwork is directly depicted on either or both sides. *new matter*

VENTILATED LIGHT BOX ("Box") Part No. 13

Preferred embodiment of Box is formed of a clear, rigid, heat-tolerant plastic such as acrylic, exterior surfaces of which have been made light-reflective inwardly by means of silvering, metallic paint, silver leaf, paint or any other means of reflective character.

Sides of Box slope inwardly and backwardly at a twenty-degree angle (which optionally may be altered as conditions warrant). Sides and back panel may be dished concavely outward. Top and bottom sloped surfaces are pierced by two holes each, of approximately 3/4" diameter, for ventilation purposes, the holes being proximate to the back of the Box. Additional such holes may be provided for larger units or for those supporting multiple light sources if such sources emit heat. Side sloped surfaces of Box also are pierced by holes for installation of light sources, with hole diameters determined by requirement of light sources selected. Preferred light sources are incandescent and fastened into sockets such as Surface Mounted Cleat Lampholder as provided commercially by Levitron Mfg. Co.

Box is secured into back of Frame by means of Light Box Attachments Flanges (Part No.18) by preferred means of 8 flat-head screws passed through Light Box Attachment Flange Screw Holes. Then passing through edges of Light Diffusion Screen(s) and thus into Artwork Containment Frame proper.

4) LIGHT BOX ("Box") Part No. 13

Preferred embodiment of Box is formed of clear, rigid, heat-tolerant plastic, the exterior surfaces of which have been made inwardly light-reflective by means of silvering, metallic paint, silver leaf, paint or any other means of reflective character.

Sides of Box slope inwardly at an angle of exactly twenty degrees, and in preferred embodiment are dished concavely inward. Such tapering is known to the art, however its employment in conjunction with light bulbs of any type being set into the tapered sides and reflectively half-coated to direct all their light strength at an angle backward at the reflective rear surface of Box renders such tapering necessary to proper and best placement of such uniquely treated light sources. Therefore in such combination it is unique to this invention and thus is proprietary.

Top and bottom sides of Box are pierced by two or more air-ventilation holes proximate to back of Box. Sockets or other mountings for light sources situate in sides of Box are installed in openings therein provided, the preferred light sources being incandescent. (See Description and Operation of Alternate Embodiments). Box is secured into back of

Frame by means of flat-head screws passed through Light Box Attachment Flange Screw Holes pierced through Light Box Attachment Flanges (Part No. 18), then through matching holes drilled in edges of Screens and thus turned into Frame proper.

5) VENTILATION FLUES ("Flues") - Part No. 14

Flues are designed to inhibit exit of light from open end of Flue, and in preferred embodiment are formed of dark plastic heat-tolerant formable fine mesh having openings between cross-filaments sufficiently small as to suppress exit of light. Such Flues are secured to body of Box by means of heat-resistant cement or adhesive.

VENTILATION FLUE ("Flue") Part No. 14

Flue is designed to inhibit exit of light, particularly from open end, and in preferred embodiment is formed of heat-tolerant, rough but formable dark plastic screening of sufficient mesh density to discourage exit of light. Flues are secured to Box by heat-resistant cement or adhesive, soldering or other sufficient means.

new matter

new matter

LIGHT SOURCE Part No. 15

Light sources in preferred embodiment are conventional incandescent bulbs, available commercially. Conventional light sources shown (Fig. 3-A) are coated on one entire side, covering half the "bulb" with a reflective media such as silvering, metallic paint, ceramic, or any other media tolerant of heat, with coated side reflecting light from light source backward and sideward without allowing viewer to be distracted by direct light from light sources.

Light source in preferred embodiment is conventional incandescent bulbs, available commercially. Conventional light source shown (Fig. 3-A) is reflectively coated internally or externally on half its circumference to reflect its entire strength out of one side, only. Preferred reflective coating is mirror-silvering, however, options include metallic paint, ceramic or other effective media. A further option is light source having light-emitting side formed of clear material and opposing side of metallic or other

new matter

new matter

suitable material. Light source is turned to direct all emitted light backward and sideward onto reflecting panels of Box, thus preventing direct light exit toward viewer.

7) LIGHT SOURCE SOCKET Part No. 16

Socket in preferred embodiment is Levitton Mfg. Co. surface mounted cleat lamp-holder, sized for small-base light bulbs supplying up to 125 watts of illumination.

Socket in preferred embodiment is Levitton Mfg. Co. surface-mounted cleat lamp-holder, sized for small base light bulbs using up to 125 watts of power. Escape of light through holes provided for light sockets or mountings is prevented by proper installation of said devices.

8) POWER CORD Part No. 17

Commercially available power cords in preferred embodiment supplying light sources are concealed within nipples or other such devices, and gathered at base of Box to a single cable connected to power outlet. Holes provided for light source bases are blocked by said light source devices so no light may exit.

In preferred embodiment, commercially available power cords supplying light sources are concealed within nipples or other such hollow devices, and gathered into a single cable connected to power outlet.

9) LIGHT BOX ATTACHMENT FLANGE Part No. 18

In preferred embodiment Flange rigidly secured Box to Frame as described herein, and fastened by means of 8 flat-head screws (of type determined by service required, such as into wood, metal, plastic, ceramic, etc.). Upon assembly of Module, Flange is placed atop edges of Light Diffusion Screen(s) within recessed back of Artwork Containment Frame, with fastening screws penetrating Screen(s) into body of Frame.

In preferred embodiment Flange rigidly secures Box to Frame and fastened by means of flat-head screws. Upon assembly of Module, Flange is placed on edges of Screen(s) within recessed back edges of Frame, with fastening screws penetrating Screen(s) into body of Frame

Part No. 19 - LIGHT BOX ATTACHMENT FLANGE SCREW HOLES

Need no operating directions, as their function is apparent.

10) LIGHT BOX VENT HOLE (Part No. 20)

Vent holes are placed as directed in prior description, in order to admit cool air at bottom of Box and vent warm air upward and out through vent holes in top of Box. Such convection is well known to the art and needs no instruction.

LIGHT BOX VENTILATION HOLE Part No. 20

Ventilation holes are located in order to admit ambient air at bottom of Box and to encourage venting of heated air at top of Box.

11) COMPRESSIBLE SPACER - Part No. 21

Spacer is included in preferred embodiment only in event depth of mounting ledge for Artwork Display Platen within inner edge of Artwork Containment Frame exceeds thickness of Platen. Spacer is any conventional compressible "packing" or "weatherstripping" of section meeting measure of space to be filled, in order to allow pressure to be exerted between periphery of artwork and mounting surface of ornamental (picture) frame. Such pressure prevents light exit toward viewer.

Spacer is included in preferred embodiment simply in event the depth of mounting ledge for Platen within inner edge of Frame exceeds thickness of Platen. Spacer is any conventional compressibly elastic material available commercially. Spacer permits

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exertion of sufficient pressure to prevent light exit between outer periphery of artwork and mounting surface of separate ornamental exhibiting device such as a picture frame.

12) ARTWORK CLAMP - Part No. 22

Clamp shown in preferred embodiment is simple, rotatable "clip". Said clip may be obtained commercially or fabricated of sheet metal to fit.

In preferred embodiment Clamp is simple, rotatable "clip" readily available commercially, or fabricated of sheet metal to fit.



Title: UNIVERSAL PORTABLE ILLUMINATED ARTWORK MODULE

Application 09/878,456

DESCRIPTION AND OPERATION, ALTERNATIVE EMBODIMENTS

1) ARTWORK DISPLAY PLATEN ("Platen") Part No. 10

An option to preferred embodiment is employment of Platen itself as an independent artwork, upon or within which is imposed artwork of any description. A new art media is introduced hereby, in which application of paints, acrylics, chalks, pencils, etc. must be modified in order to render necessary translucency.

An option to preferred embodiment is employment of Platen itself as an independent artwork, upon or within which is imposed artwork of any description. A new art media is introduced hereby, in which application of paints, acrylics, chalks, pencils, etc., must be modified in order to render necessary translucency. Usual opacity of applied media will not permit sufficient light transmission to viewer. } new mtlr

.A further option to the Platen is lamination of two or more sheets of a translucent medium, either similar or dissimilar in: Color; In physical and light transferral properties; Of same or differing geometry and perimeteral dimensions; Or, any other features compatible to such laminating.

A further Platen option is the lamination of two or more planar or non-planar sheets of a translucent or transparent material. These sheets are either similar or dissimilar in: Color; In physical and light transmission properties; Of composition resulting in reaction to light such as fluorescing properties; Of same of differing geometry and dimensions; Or, any other features compatible to such laminating. } new mtlr

A further Platen option, as one of several related examples possible, teaches of an Platen being either clear or colored and preprinted with or otherwise defined designs for artistic direction.

A further Platen option as one of several related examples possible, teaches of a Platen being either clear or varicolored and preprinted with defined designs for artistic direction and completion by the artist.

A further option is an Platen that is colored, either wholly or in varicolored sections, to provide a background for artistic media application.

A further option is a Platen of one thickness or multiple dissimilar laminations, colored either wholly or varicolored sectionally, to provide a background for artistic media manipulative and inventive application.

A further option is the incorporation into or onto the Platen, or a laminated variation thereof, of a substance caused to fluoresce when exposed to an ultra-violet or equivalent light source that is situate within Ventilated Light Box (Part No. 13), which part is described herein later.

A further option is the incorporation into or onto a single thickness Platen, or any laminated variation thereof, of a substance causing the Platen to fluoresce or otherwise react internally when exposed to an ultra-violet or other light source that is situate within Light Box (Part No. 13), which part is described herein later. This internal lighting effect permits unusual artwork illumination and expression.

A further optional Platen is built upon by additional sheets, or partial sheets of same or differing translucent materials, colored or white, or clear or opaque, as would be a work of stained glass, or an artistic collage.

A further optional Platen is rendered by addition of sheets or partial sheets of same or differing translucent or transparent materials, colored or not, clear or opaque, resulting in a work similar to stained glass or artful collage.

A further option has all perimetral edges silvered or otherwise coated with any paint, foil, plastic, etc., that will defeat light exit from such edges and will redirect such light back into Platen proper. It is well known that perimetral edges of many plastics and other such materials, when light is directed upon their surfaces, will discharge light brightly.

No change.

A further option to Platen allows light to exit its edges into a picture frame which, if translucent at perimeter of Platen, will be caused to glow.

A further option to invention when mounted in a picture frame or similar device, permits light to exit Platen edges into surrounding containment structure of picture frame which, if translucent or transparent at perimeter of Platen, will be caused to glow uniformly or sectionally in accordance with selected lateral release of light from perimeter of Platen.

A further option is bevelling or rounding downward the perimetral edges of Platen to surface level of Frame, which configuration will surround the artwork with a thin "light frame", especially when Platen is made of plastic material.

A further option is bevelling or rounding downward the perimetral edges of Platen to matching front surface level of Frame, which configuration will surround the artwork with a thin "light frame", particularly when Platen is formed of any material such as a plastic material, that directs a portion of light entering from lightbox outwardly to exit edges of Platen.

A further option to Platen is attachment to surface facing viewer of a narrow reflector strip closely to edge of Platen, that will direct light outwardly onto adjacent

Page 3

surfaces of picture frame (which may or may not be translucent or reflective). Said reflector strip is made of any rigid material made reflective by means of back-coating, plating or any other effective means, has either curved or flat section such as to reflect light from surface of Platen laterally onto the picture frame, without exposing such light to viewer.

A further option is attachment to surface of Platen facing viewer of a narrow reflector strip closely to edge of Platen, that will direct light outwardly to illuminate adjacent surfaces of picture frame (which may or may not be translucent or reflective). Said reflector strip is made of any rigid material made reflective by means of back-coating, plating or any other effective means, has either curved or flat section such as to reflect light from surface of Platen laterally onto the picture frame, without exposing such light to viewer.

A further Platen option contains wires, threads, fibers, or any other such filamentary means, disposed in any artful curvilinear or rectilinear manner fixed or loosely ordered to deliver enjoyment to viewer. Said fibrous means may or may not be colored, and may be sandwiched between two or more sheets of laminated means. A new artistic direction is enabled by such means.

A further option is any configuration of Platen containing wires, threads, fibers, or any other filamentary elements either singular, multiple strands or interwoven, disposed in any pleasingly artful manner, fixed or loosely ordered to deliver enjoyment to viewer. Said fibrous elements are colored, varicolored or uncolored, and are sandwiched between two or more laminated Platen sheets, or internally cast within one or more Platen sheets. A novel artistic expression is enabled by such means.

A further option to Platen is inclusion onto or into any Platen, filaments of metallic, ceramic or any other substance conductive to electricity. Such filamentary devices may cause Platen areas affected thereby to react in color when power is directed therein, notably when Platen contains elements permitting such light emanations, and/or when power is applied by means of controllable circuitry such as computer chips which themselves may be controlled remotely.

A further option to Platen is inclusion onto or into any Platen, filaments of metallic, ceramic or any other substance conductive to electricity. Such filamentary elements cause Platen areas affected thereby to react visibly when power is directed therein, notably when Platen contains elements permitting such light emanations, and or when power is applied by means of controllable circuitry such as computer chips which themselves may be controlled remotely. Resulting illumination is in color or not.

A further option imposes upon, into or within the Platen or laminations of Platen, a digital clock face and/or any chart-like or grid-like pattern, perhaps reactive to electricity, useful to commercial and/or military interests, to be varied as called for by human remote control, which control may be directed by means of computer chip(s)

Page 4

situate on or within Platen or Ventilated Box assembly (Part No. 13). Endless interconnections of such conductors are possible and practical, to be controlled in production of visual effects desired. Module containing such Platen ideally would be mounted upon an easel.

A further option imposes upon, into or within the Platen or laminations of Platen, a digital clock face and/or any chart-like or grid-like pattern, reactive to electricity or not, useful to commercial and/or military interests, variable by human remote control, which control may be directed by means of computer chip(s) situate on or within body of Module. Endless interconnectins of such conductors are possible and practical, control of which is effected to produce visual effects desired.

A further option is reciprocal slidability to facilitate alternate or successive viewing of a multiplicity of Platens. Such slidable means are well known and may be attached to front face of Artwork Containment Frame (Part No. 11) into which a multiplicity of Platens may be fitted and alternated. A further option to such alternate/successive slideable means is a device to rotationally place Platens for viewing and may be disposed in either horizontal or vertical circulatory embodiment. Such rotational means are well known to the art, having been employed in projectors for photographic negatives, as one example.

No change.

A further option to any embodiment of Platen is introduction of a coordinated sound system to augment pleasure enjoyed by viewers of artwork, or to facilitate instruction and descriptions derived in commercial or military uses. Such sound systems may be controlled by remote control means that also may be used for visual displays.

A further option to any embodiment of Platen artwork is introduction into body of Module a coordinated sound system to augment pleasure enjoyed by viewers or artwork, or to facilitate instruction and descriptions derived in commercial or military uses. Such sound systems are controlled by remote means that also may be used to combine audio effects with visual displays.

A further option to Platen is roughening of work surfaces by means of emery paper, sandblasting, etching, grit, or any other effective means. Such treatment will cause art media to bond more effectively to work surfaces and will discourage "sag" by flowable media.

No change.

Page 5

It is notable that art media applied to work face of Platen may easily be removed by means of spirits, water, rags, scraping or any other suitable means. Thusly, a clean workpiece is made available to the artist to re-impose desired depictions, at will.

No change.

2) ARTWORK CONTAINMENT FRAME ("Frame") Part No. 11

Optional to Frame are planar surfaces, at viewer face, widened to accommodate Module to ornamental viewing frame such as a picture frame in order to fit a smaller Module to a larger viewing frame. Said widened surface may be finished in such manner as to blend with (or contrast to) viewing frame surfaces proximate to face of Module, perhaps to be covered by transparent or translucent sheet reactive to light or not, or by means of a coating of colored media.

Optional to Frame are planar or non-planar surfaces disposed toward viewer, widened to accommodate Module to a separate ornamental viewing frame such as a picture frame in order to fit a smaller Module to a larger external frame. Said widened surface may be finished in such manner as to blend with (or contrast to) viewing frame surfaces proximate

to face of Module, perhaps to be covered by transparent or translucent sheet reactive to light or not, or by means of a coating of colored material.

A further option is multiple, interchangeable Frames dimensioned at front faces to accomodate Platens of varying sizes and media types.

Importantly, Frame may be rendered monolithic by application of sturdy corner braces, in the event large and/or heavy impositions require such benefit.

No change.

3) LIGHT DIFFUSION SCREEN ("Screen") Part No. 12

Optional Screen is produced by substitution of styrene, glass, or other effective material for preferred acrylic.

Page 6

A further option is use of white or colored Sheet, either wholly or sectionally treated in one or more colors.

Use of acrylic light-diffusing screens is well-known to the art, but highly selective employment of such light-controlling elements in conjunction with innovative systems incorporated in present invention commands consideration as new and novel improvment. For example, use of light-diffusing screening either in singular or multiple thickness as the Platen itself, and upon which an artwork si depicted, is previously unknown to the art. Alternative diffusion Screening is made practicable by substitution of clear or translucent sheeting of colored or non-colored styrene, glass, or other effecive material for preferred acrylic.

An optional employment for Light Diffusing Screen is introduction of light into the Module only by means of insertion of individual light sources at intervals within edges of Sheet, or by surrounding perimeter of Sheet with iluminated glass or plastic tubing. Thus, Lightbox would be rendered a reflector only.

A further option is use of Sheet, being wholly or sectionally treated in one or more colors, in singular or multiple thicknesses, or in multiple irregular parts arranged artfully, to disseminate light selectively with infinite variety of compositions.

4) VENTILATED LIGHT BOX ("Box") Part No. 13

Optionally, Box is formed of sheet metal, opaque plastic, ceramic, organic or inorganic compositions, or any other material suited to the purpose and duty, and which is coated internally with reflective means such as silvering, paint, metallic paint, tin plating or any other suitable means.

4) LIGHT BOX ("Box") Part No. 13

Optionally, Box is formed of sheet metal, opaque plastic, ceramic, organic or inorganic compositions, or any other material suited to the purpose and duty, coated internally with reflective means such as silvering, paint, metallic paint, tin plating or any other suitable means.

A further option is the imposition of a dimensioned Sheet to rear, internal surface of Box panel, fastened centrally by means of a machine screw with chrome-plated head passed through Box back panel and secured externally by means of washer and nut extending nominally outward to rear, in order to discourage mechanical abrasion and impact damage to back outer surface of Box.

A further option is fixing of a rigid panel, conforming to interior contours of back of Box, to internal rear surface of Box panel and fastened centrally by means of a machine screw with chrome-plated head passed through Box back panel and secured externally by means of washer and nut extending nominally outward to rear, in order to discourage mechanical abrasion and possible impact damage to rear extenal surface of Box.

A further option is substitution of a piano hinge for Attachment Flange on one side of Box, or order to facilitate service access.

No change.

A further option is insertion and jointure of separate adaptor between Box and an assembly of other components of entire artwork display means having dissimilar dimensions.

A further option is fixing of separate adaptor between Box and forward assembly of Module when both elements have incompatible connectional configuration.

5) VENTILATION FLUES ("Flue") Part No. 14

An optional construction of Ventilation Flues is use of metallic wire screen, which must be black of dark in color,

Page 7

and fixed to body of Box by means of solder, cement or adhesive, or any other effective means.

A further option is use of a rigid, solid material in forming of Flue, interior surfaces of which are coated with a heat-tolerant black media, which Flue is fixed to body of Box by means of any suitable solder, weld, rivets, adhesive or cement or any other suitable bonding means or method.

A further option in attachment of Flue to Box is use of channel-shaped rigid strips over which Flue is slidably and tightly installed.

A further option is replacement of Flues at bottom of Light Box with one or more air blower(s) to force cool air into Box proper.

Top and bottom air ventilation openings in any confined configuration such as a light box are well known to the art, but devices appended thereto for the dual purpose not only of permitting air passage into and out of the confined area but at the same time denying exit of light from within the confined area are a new improvement to the art.

*Conventional and preferred material for forming Ventilation Flues is sheet metal.
Optional construction of Ventilation Flues employs fine-mesh metallic wire screen, black*

or dark in color, strongly fixed to exterior top and bottom body of Box by means of solder, heat-resistive cement or adhesive, or any other positive means.

A further option is use of a rigid and heat tolerant, moldable material in forming of Flue, interior surfaces of which are finished in raised, randomly profuse ridgelike protrusions to diffuse and discourage exit of light, and coated with a heat-tolerant black media. Flue is fixed to body of Box by means of any suitable solder, weld, rivets, adhesive or cement or any other suitable mutual-bonding means or method.

A further option in attachment of Flue to Box is fixing channel-shaped rigid strips to exterior of Box to span vent holes, onto which strips Flue is slideably and tightly installed.

A further option is replacement of Flues at bottom of Light Box with one or more air blower(s) to force cool air into Box proper.

6) LIGHT SOURCE Part No. 15

Optional to coating of half-length of incandescent bulbs is substitution of rotatable reflector "caps" such as those in wide use on night lights, mechanics' work lights, and the like.

Optional light sources are fluorescent, ultraviolet, infrared, neon, halogen or any other light source, colored or not.

A further optional light source is provided by means of coating interior of Box with a medium caused to fluoresce when exposed to ultraviolet light.

Page 8

A further option is use of light sources in the primary colors, that individually may be controlled by means of dimmer command, enabling viewer to adjust light falling upon artwork to any intensity, color or shading in order to intensify or diminish any effect desired. (a sunset scene could be made to truly "come alive.")

Optional to one-side coating of full length of incandescent bulbs is substitution of rotatable reflector "caps" such as those in wide use on night lights, mechanics' work lights, and the like.

Optional light sources are fluorescent, ultraviolet, infrared, neon, halogen or any other light source, colored or not and in non-uniform combination if desired for effect. A refined option is use of light sources in the primary colors, that individually may be controlled by means of dimmer command, enabling viewer to adjust light falling upon artwork to any intensity, color or shading in order to intensify or diminish any effect desired (a sunset scene could be made to truly "come alive").

A further optional light source is provided by means of coating interior of Box and Frame with a medium caused to fluoresce when exposed to ultraviolet light.

7) LIGHT SOURCE SOCKET Part No. 16

Options to preferred embodiment may be such as those supplied by Angelo Bros. Co. ("Snap-In Socket"), or many conventional small lamp sockets or "candelabra bases" set on threaded nipples secured by exterior crossbars.

Options to preferred embodiment may be such as those supplied by Angelo Bros. Co. ("Snap-In Socket"), or many conventional small lamp sockets or "candelabra bases" set on threaded nipples secured by exterior crossbars, or nuts over washers.

8) POWER CORD Part No. 17

Options to conventional power cords include inclusion of dimmer device controlled by timer to permit increasing or decreasing light brilliance of artwork displays, as programmed to viewer's pleasure.

A further option is use of threaded or press-on devices at power cord connections to VLB light sources.

A further option is use of "harness" composition of cable, cords and wire connections.

Options to conventional power cords include inclusion of dimmer device operated manually or preferentially controlled by timer to permit increasing or decreasing light brilliance of artwork displays, as programmed to viewer's pleasure.

A further option is use of threaded or press-on devices at power cord connections to Light Box light source.

A further option is use of "harness" combinations of cable, cords and/or wire connectors, gathered into a single cable outside Box and so fed into a single plug-in connective device.

9) LIGHT BOX ATTACHMENT FLANGE Part No. 18

An alternate is substitution of a piano hinge for Flange on one side of Box.

An alternate to Flange on one side of Box is substitution of piano hinge for that Flange.

Page 9

A further option is Flange secured to Frame by means of clamping device such as spring clamp, rotatable clip, elastic compression, cinched strap, slidable or any other device effectively securing Box to Frame.

A further option is Flange secured to Frame by means of clamping device such as spring clamp, rotatable clip, elastic compression, cinched strap, slidable or any other device effectively securing Box to Frame, in combination with piano hinge or not.

10) LIGHT BOX VENT HOLE Part No. 20

An option to simple vent hole(s) is employment of blower(s) to force cool air into body of Light Box.

A further option is use of pre-cooled air forced into body of Light Box at bottom.

An optional improvement of simple vent hole(s) is installation of air blower(s) at lower vent holes to force ambient air through Light Box.

A further option for large Light Boxes containing multiple light sources is forcing pre-cooled air into body of Light Box at bottom.

11) COMPRESSIBLE SPACER Part No. 21

Optionally, Spacer may be secured to front or to back edges of ADP, rather than being a separate element.

Optionally, Spacer may be secured to front or to back edges, or both, of Platen, rather than being a separate element.

A further option is employment of one or more sheets of Light Diffusion Screen to fill space between Platen and mounting ledge of Frame.

A further option is employment of one or more sheets of Light Diffusion Screen to fill space between back of Platen and mounting ledge or front edge of Frame.

12) ARTWORK CLAMP Part No. 22

Optional devices are available commercially to hold together two planar elements are spring clips and clamps, compression clamps, slide latches and the like.

Many conventional clamping devices are well known to the art, but when employed to improve upon existing art become operational devices to the new. Several dissimilar devices are available commercially to secure together two or more contiguous parts, and include spring clips and clamps, compression clamps, slide latches and the like.

CONCLUSION, RAMIFICATIONS AND SCOPE OF INVENTION

It has been demonstrated herein that present invention conveys a wide array of inherent advantages not enjoyed previously by art relating to display of backlighted artwork. While DESCRIPTION contains many specifications and options, these should not be construed as limitations on Scope of invention. Many additional variations are implicit and possible.

It has been demonstrated herein that present invention conveys a wide array of inherent advantages not enjoyed by prior art relating to display of back-lighted artwork, not to mention the enabling of entirely novel art forms hitherto unknown. While DESCRIPTION contains many specifications and options, these should not be construed as limitations on Scope of invention. Due to the exhaustive flexibility of present invention, any additional variations are implicit and become practicable.

Accordingly, Scope of the invention should be determined not by embodiments made known and described herein, but by the appended claims and their legal equivalents.

Accordingly, Scope of the invention should be determined not only by embodiments made known and described herein, but by implicit alternative embodiments and their legal equivalents.



Title: **UNIVERSAL PORTABLE ILLUMINATED ARTWORK MODULE**

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OPERATION OF THE INVENTION

GROUP 3600

It is implicit that dimensions of Module elements may be in/decreased at will in order to meet size/weight requirements of artworks as may be indicated.

A) ARTWORK DISPLAY PLATEN ("Platen") Part No. 10

Preferred embodiment of present invention teaches employment of Module as a "portable" artwork display unit, wholly self-contained, that may be fixed into any suitable artwork display frame, which universal utility marks its portability feature. Module is attached to picture frame or any other such display device by conventional means such as blocking (with screws if needed), snap clamps, spring clamps, rotatable clamps or spring devices, or any other such simple device or technique currently in use.

Module may be wall mounted, table mounted, floor mounted, easel mounted, or any other such accommodation desired. In event viewer wishes to do so, Module may be fitted with a simple skirt to conceal its construction. Electrical power is fed to Module in conventional manner, from any convenient outlet, with a cord colored to satisfy.

Present invention teaches a wide array of optional choices relating to artwork media, artwork forms, artwork uses and artwork assembly to Platen. Majority of such options are simple derivations of conventional, however, a few are quite technical in nature albeit simple in description and manufacture. The latter are found in descriptions herein associative with wires or patterns thereof conductive to electricity, the ordered display of such patterns remotely controlled, and display of a multiplicity of Platens embraced by slidably reciprocal, alternate, successive or rotatable means. All such operation is achieved by means of devices or controls or manipulations currently available commercially. Similarly, sound may be employed within scopes and uses of innovations taught herein by inclusion of digital recording or any other similar means into any system, to be controlled simply by hand remote control, or by emplacement of a computer element to coordinate sound source with the graphics.

Application of options is clearly taught by present invention. For example, use of Platen as an independent artwork upon (or within) which artwork would be directly applied requires no unusual operational skills, but introduces an art mode in use and application of media not contemplated heretofore that would challenge any innovative artist. Laminated work (collage) described hereinbefore may be of any reasonable thickness

and still easily be attachable to and displayed within artist's decorative frame. A pattern preprinted directly upon Platen for completion by an amateur artist needs no further clarification, as can be said of use of colored platens, even in multiplicity taught herein.

The inclusion within or on Platen or any appurtenances thereto of fluorescable character, colored or not, is made notable when such inclusions are exposed to ultra-violet light generated in Ventilated Light Box, and that light source is varied in intensity by voltage controls, the fluorescent effects can be dramatic, indeed. Additionally, in similar teaching, light falling upon Platen, etc., from within can be dimmed/brightened simply by means of in-line rheostatic control, and further may be programmably timed to cause an artwork depicting a sunset to descend from brilliance gradually into afterglow. Similar effects may be achieved at will.

The introduction of artfully disposed fibrous elements into or onto Platen or any attachment thereto introduces still another completely new art skill, with unlimited scope of expression.

The progressive techniques, methods and skills taught by present invention encompassing Platen use are completely new and previously unknown to the art. They allow unprecedented flexibility of artistic expression and scope, and bring to the artistic community vast new opportunity.

No change.

B) ARTWORK CONTAINMENT FRAME ("Frame") Part No. 11

Frame is a simple device designed merely to bring securely together the other three main elements of present invention. Its function allows no true dynamics, however it is integral to the absolute requirement of light reflection upon Platen, etc., and must be sufficiently sturdy to support Module proper without deflection. Thus, sectional dimensions may be altered to support Module exposure as necessary. Module parts are assembled in "sandwich" form, with Platen facing Viewer and secured to Frame, the Screens then fitted into back of Frame to be covered and held in place by Box. Nothing to it!

No change.

C) LIGHT DIFFUSION SCREEN(S) ("Screen") - Part No. 12)

Function of Screen is to scatter, diffuse, disperse uniformly all light directed upon it (them) from Ventilated Light Box, although such light will already be widely dispersed by

previous effective means. Present invention employs all such means to enable display of artworks to greatest advantage and enjoyment of viewer. Teachings of present invention include advantages gained by employment of a multiplicity of Screens,

Page 3

enabled by configuration of Artwork Containment Frame or obvious modification thereto.

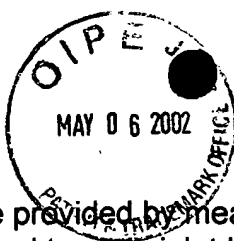
In practice, Screen may be clear, white, colored or sectionally-colored or framedly focused at midportion or any other portion or portions of Screen, to limit light transmission to section(s) of artwork as may be desirable to meet dictates of artwork. An option to use of conventional diffusion screens is employment of or development of a screen or screens designed to focus light from the Ventilated Light Box centrally upon artwork.

Screens are included in this discussion for convenience, not as a proprietary element of Claims, in order to illustrate their use, although the fixing of one or more screens to back of Artwork Display Platen has not been noted in prior art and may be considered as functionally new and innovative. Function of Screen is to scatter, diffuse, disperse uniformly all light directed upon it (them) from Ventilated Light Box, although such light will already be widely dispersed by previous effective means. Present invention employs all such means to enable display of artworks to greatest advantage and enjoyment of viewer. Teachings of present invention include advantages gained by employment of a multiplicity of screens, enabled by configuration of Artwork Containment Frame or obvious modification thereto.

In practice, Screen may be clear, white, colored or sectionally-colored or framedly focused at mid-portion or any other portion or portions of Screen, to limit light transmission to section(s) of artwork as may be desirable to meet dictates of artwork. An option to use of conventional diffusion screens is employment of or development of a screen or screens designed to focus light from the Ventilated Light Box centrally upon artwork.

D) VENTILATED LIGHT BOX ("BOX") - Part No. 13

Subject element of Module permits wide-ranging imaginative excursions. Said Box in present invention is source of all light directed upon artwork, and thus may be fitted with a multiplicity of light sources of various types of emanations, and may be designed to direct such light centrally or to disperse uniformly all light emissions. Said Box may be provided with facility to embrace not only preferred embodiment of incandescent light bulbs, colored or not, but can be made to accomodate fluorescent bulbs, colored or not, such as commercially available short tubes, or "bulbs" inclusive of ballasts enclosed within their bases; infrared bulbs; neon tube light elements colored or not, with transformers; ultraviolet bulbs; halogen and other light sources. Production of unusual



light may be provided by means of coating interior of Box with medium that will fluoresce when exposed to ultraviolet light.

No change.

In preferred embodiment light sources within Box ideally are controlled by means of an in-line dimmer control, but may be turned on or off simply by means of an in-line switch located at Module. Lighting may be controlled by means of control programmed to conform to artwork display sequential needs, and may be made to illuminate or turn off by means of a timer. An innovative option is to install light bulbs in the primary colors and control their brightness individually by means of dimmer controls (with computer control or not). Using this method, viewer may adjust light falling upon artwork to any intensity, of any color, of any shading (this utilization of light control would produce an even more admirable sunset progression than described earlier herein - it truly would "come alive!").

No change.

It is notable that the 20-degree slope angle cited earlier in this description causes light emitted from light sources (masked as hereinbefore described) to impinge upon all rear and side surfaces of Box to be mixed and diffused prior to being directed upon Light Diffusion Screen(s). Ventilation is effected by means of convective routing, which employs vent holes in exterior of the Box at bottom for new air entry, and matching holes

Page 4

in exterior of the Box at top for air exit. Ventilation Flues (Part No. 14) covering all such vent holes discourage light exit that would distract viewer.

It is nortable that the exact 20-degree slope-angle cited earlier in this description is necessary. It causes light emitted from light sources (masked as hereinbefore described) to impinge upon all rear and side surfaces of Box to be mixed and diffused prior to being directed upon Light Diffusion Screen(s). Ventilation is effected by means of convective routing, which employs vent holes in exterior of the Box at bottom for new air entry, and matching holes in exterior of the Box at top for air exit. Ventilation Flues (Part No. 14) covering all such vent holes discourage light exit that would distract viewer.



Title: **UNIVERSAL PORTABLE ILLUMINATED ARTWORK MODULE**

Application No. 09/878,456

I CLAIM

[All following original claims in non-italics are deleted (redlined) and are replaced by Claims *in italics*].

1) An Artwork Display Means for translucent artworks, comprising

- A) A shallow back-lighted means.
- B) A Light Diffusion means.
- C) A Frame means.
- D) A Platen means.

*1) A portable artwork display means, comprising:
a lightbox means; and
an artwork containment frame means, and
an artwork display platen means.*

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GROUP 3600

2) An Artwork Display means according to Claim 1A.

- A) The Artwork Display means of Claim 1A whereby said device underlies art works.
- B) The Artwork Display means of Claim 1A whereby said device includes a shallow light box means formed of rigid heat-tolerant material.
 - a) The light box means of Claim 2B wherein said light box means may be formed of a clear material.
 - b) The light box means of Claim 2Ba wherein said light box means may be treated to reflect light inwardly.
 - c) The light box means of Claim 2B wherein said light box means may be formed of sheet metal.
 - d) The light box means of Claim 2Bc wherein said light box means may be coated internally with a light-reflective means.

- e) The light box means of Claim 2B wherein said light box means slopes inwardly and backwardly.
- f) The light box means of Claim 2B wherein said light box means contains a multiplicity of light sources.
- g) The light sources of Claim 2Bf wherein said light sources may be dimmable.
- h) The light box means of Claim 2B wherein said light box means is pierced by vent hole means at top and bottom
- i) The venthole means of Claim 2Bh wherein said vent holes are fitted with ventilation flue means to prevent light exit.
- j) The light box means of Claim 2B wherein said light box means has attachment flange means.
- k) The light box means of Claim 2Bj wherein said attachment flange means are fixed into back of assembly of artwork display means.

2) The portable artwork display means of Claim 1 is attachable into a display device;
wherein:
the display device is a picture frame ¹¹² or any other such display device; and
attachment is temporary or permanent.

112 has not
been shown to support
not shown in drawings

3) An artwork display means according to claim 1B.

A) A light diffusion means formed of rigid translucent material.

- a) The light diffusion means of Claim 3A wherein said light diffusion means may be in thin sheet form with surface pattern designed to scatter light passing through said light diffusion means.
- b) The light diffusion means of Claim 3A whereby said light diffusion means may be fixed into assembly of artwork display means adjoining Ventilated Light Box means.

3) The lightbox means of Claim 1 is formed of a rigid heat-tolerant material configured and coated to diffuse reflected light inwardly.

4) An artwork display means according to claim 1C.

A) An artwork containment frame means formed of a rigid machineable material.

- a) The Artwork Containment Frame means of Claim 4A wherein said artwork containment

means is assembled of mitred lengths of framal elements.

- b) The Frame means of Claim 4Aa wherein said artwork containment frame is formed to permit fixing thereto of other members of artwork display means.
- c) The Frame means of Claim 4A wherein said Frame means has sides coated with light reflective means.

4) The lightbox means of Claim 3 is strengthened and augmented by means of rigid reflective panel secured onto back of lightbox.

5) Artwork display means according to Claim 1D.

- A) A planar artwork display platen means according to Claim 5 formed of a translucent rigid material.
- B) The Platen means of Claim 5A wherein said Artwork Display Means is dimensioned to fit into front of Frame means facing viewer.
 - a) The Platen means of Claim 5B wherein said artwork display platen means may be of any thickness suitable for service required.
 - b) The Platen means of Claim 5Ba wherein said platen means may be translucent, clear or colored.
 - c) The platen means of Claim 5B wherein said platen means may be of single or compositly laminated.
 - d) The Platen means of Claim 5A wherein said platen means may contain compositions differing in color and other physical aspects.
 - e) The Platen means of Claim 5Bc wherein said platen means may contain any filamentary means.
 - f) The Platen means of Claim 5Bc wherein said platen means may have artwork imposed directly upon or into it, itself becoming the artwork to be displayed.
 - g) The platen means of Claim 5c whereby said platen means may contain reactive to light.

5) The lightbox means of Claim 4 is configured to prevent light exit from air vents.

*6) The lightbox means of Claim 5 is fitted with one or more adjustable light sources; comprising:
commercial light sources of any category or number or combination; and*

light sources opaquely coated full-length over half of circumference.

7) The light sources of Claim 6 are timer-dimmable.

8) An artwork display means, comprising:

a light box means, and

an artwork containment frame means, and

an artwork display platen means.

9) The artwork containment frame means of Claim 8 is formed of rigid

machineable material; comprising:

one or more parts; and

internal light reactive/reflective coating; and

accommodation for one or more commercially-available light-diffusing screens,;

and

configured to receive platen means at viewer end.

10) An artwork display means, comprising:

a lightbox means; and

an artwork containment frame means; and

an artwork display platen means.

11) The artwork display platen means of Claim 10 is formed of planar or non-planar rigid material.

12) The artwork display platen means of Claim 11 is formed of transparently clear or translucent material.

13) The artwork display platen means of Claim 12 is wholly or sectionally colored.

14) The artwork display platen means of Claim 13 is formed of one or more similar or dissimilar parts.

15) The artwork display platen means of Claim 14 displays artwork interchangeably secured at viewer side.

16) The artwork display platen means of Claim 15 contains embedded artful arrays of inert of electrically conductive filamentary elements.

17) The artwork display platen means of Claim 16 is formed of material reactive to light.

18) The artwork display platen means of Claim 17 is itself an artwork with artwork applied directly onto either surface.

19) The artwork display platen means of Claim 18 is preprinted with patterns and images to be completed by artist.